

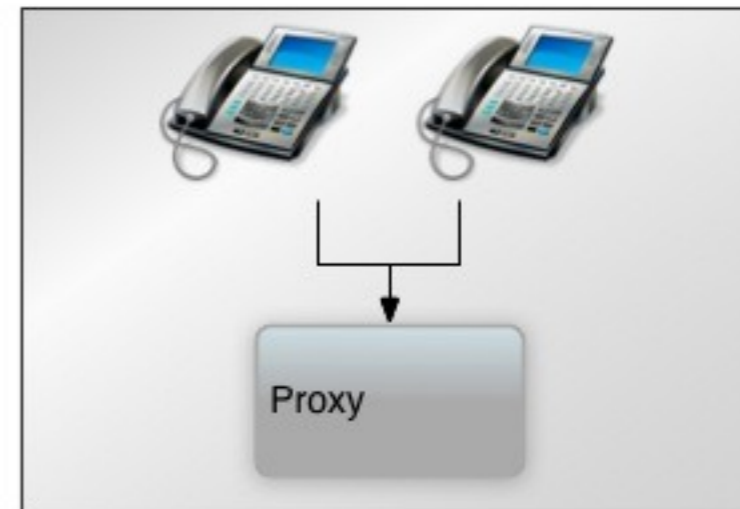


Dynamic SIP-loadbalancing with SIP-Router

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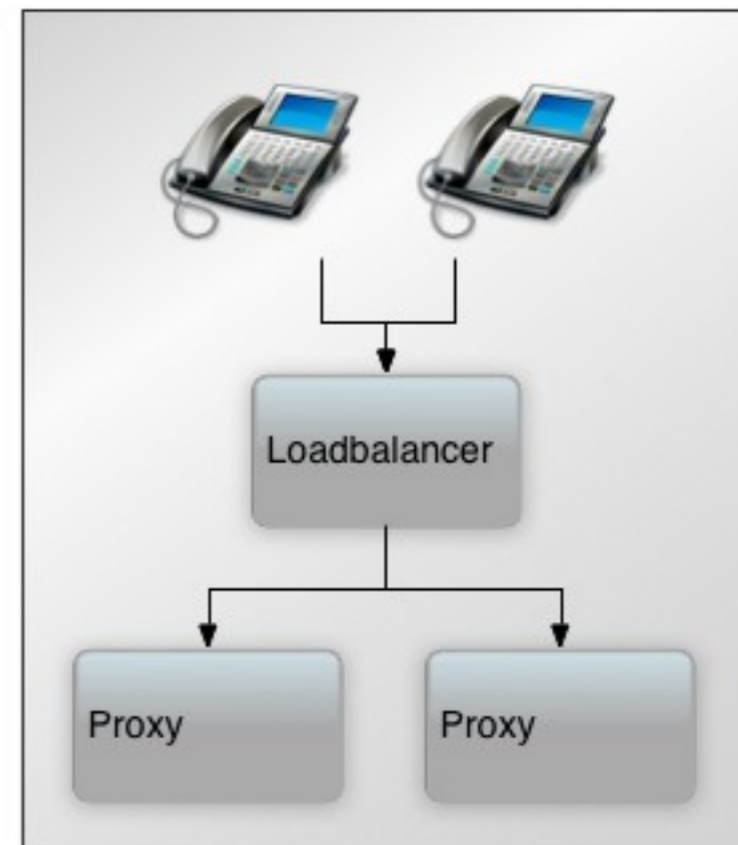
SIP-Proxy

- Classic tasks:
- Speaks SIP over UDP with UAC
- Registrar
- Call routing, sip2sip, sip2pstn
- Non-persistent location
- User-authentication
- Works very well on its own



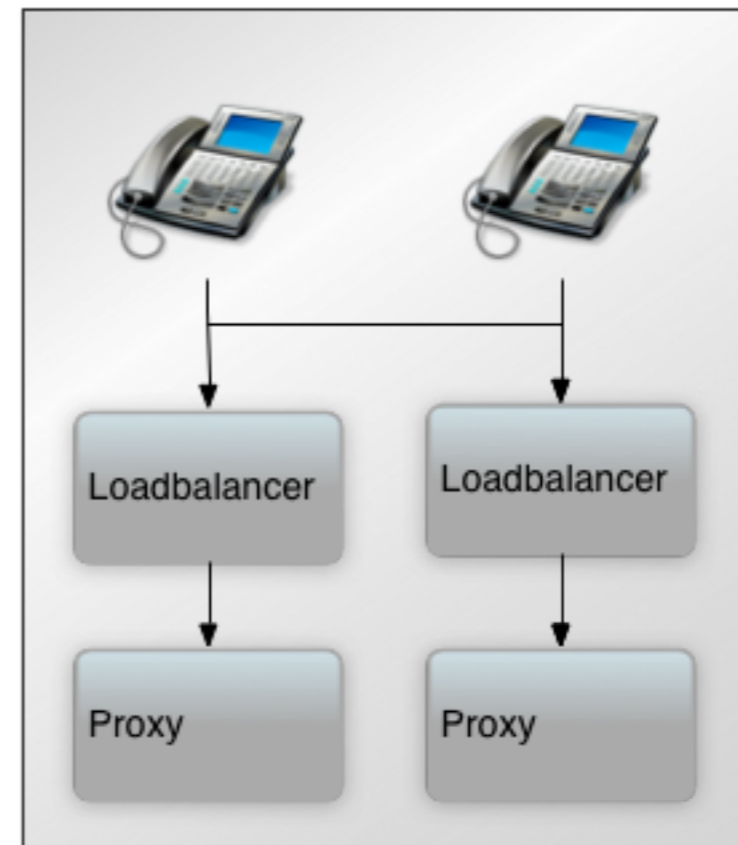
Loadbalancer

- In front of proxies
- Public ip
- Path
- Dispatches SIP-traffic to multiple proxies using specific algorithm
- NAT-handling
- Becomes single point of failure if only one

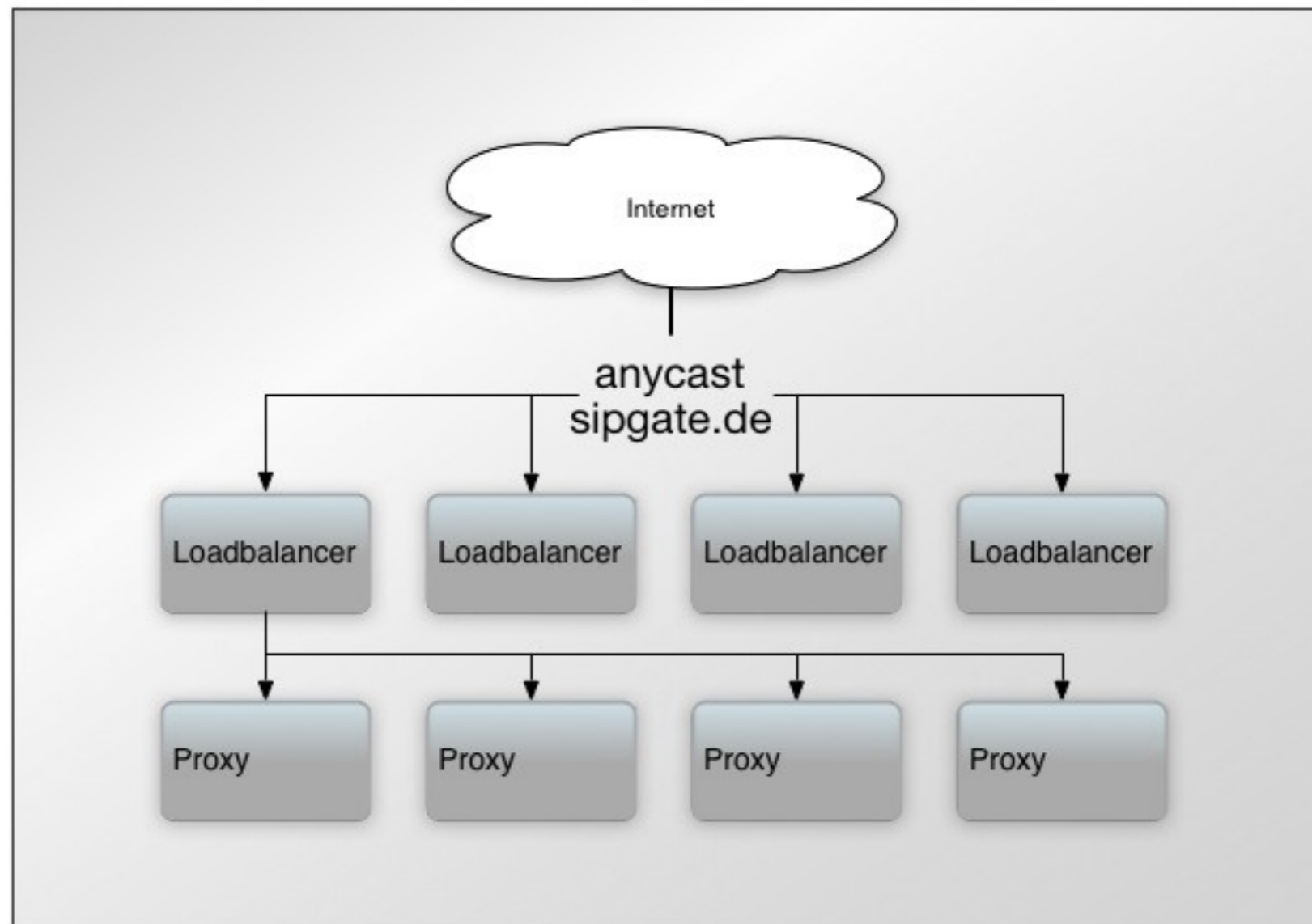


Multiple loadbalancers

- In different datacenters
- Stateless
- Problem: how to route UDP/SIP to loadbalancers providing failover
- IP-anycast
- Eliminates single point of failure



Loadbalanced SIP-Router

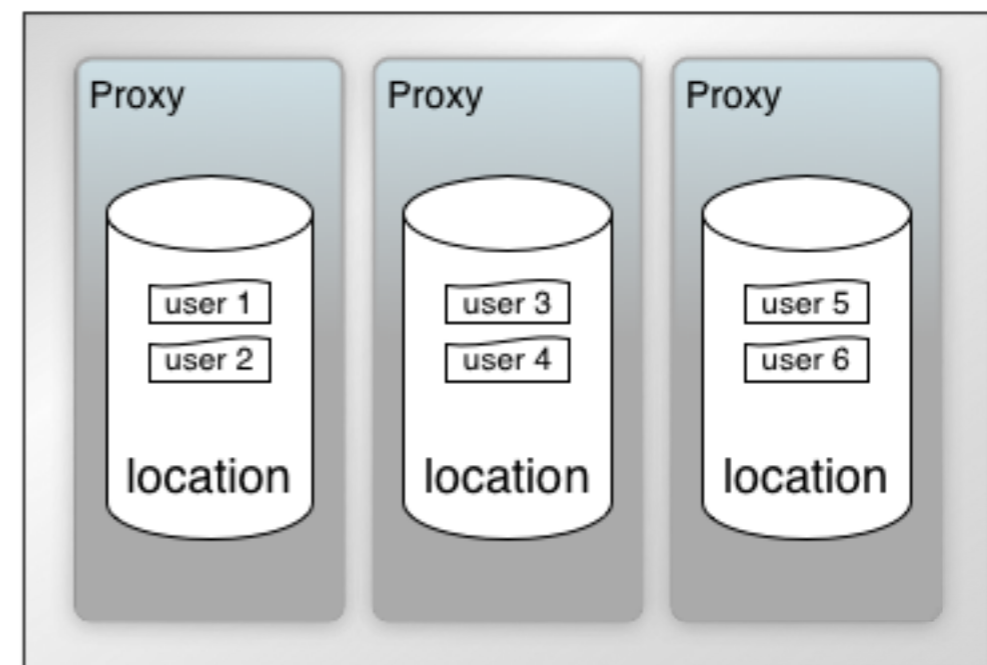


Dispatcher

- Proxies have transactional state & location state
- Therefore loadbalancers must assure SIP-Packets for specific user go to same proxy
- sip-router: dispatcher-module
- Offers different algorithms, we wrote our own
- Maps request uri to specific proxy server

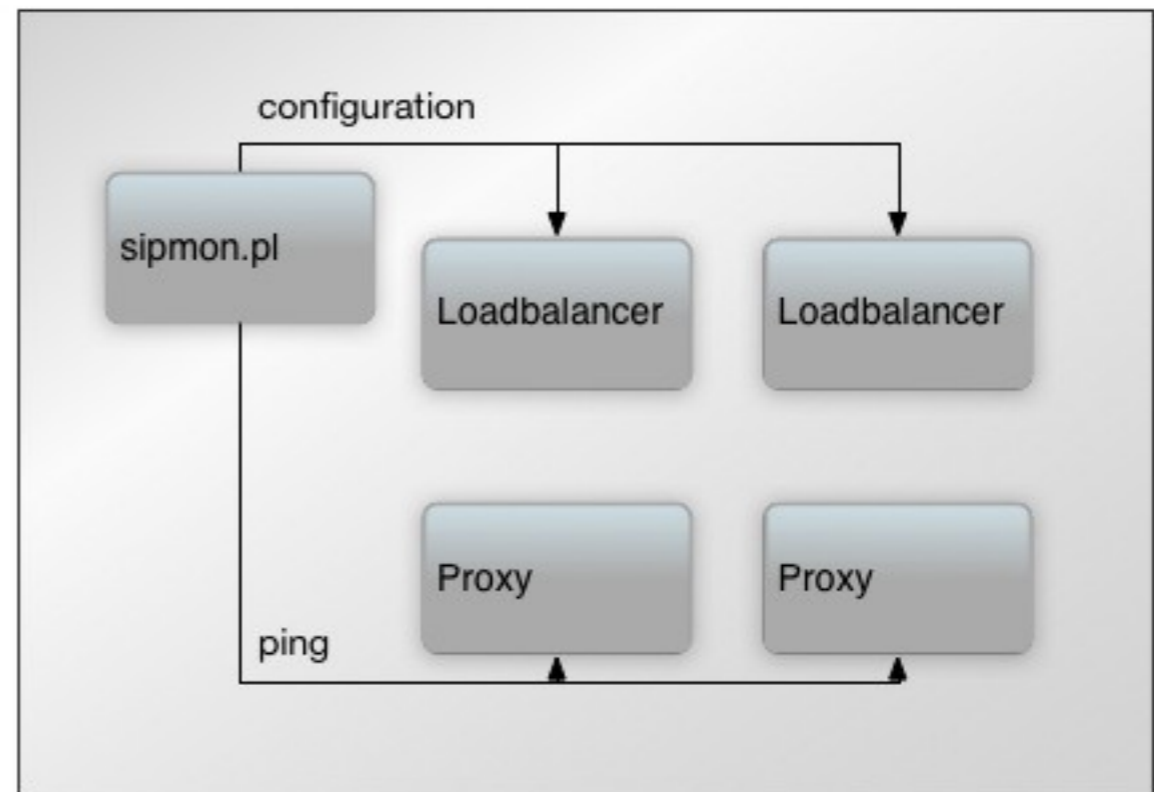
Dynamic loadbalancers

- What happens if a proxy fails?
- Problem: static mapping of users to proxies means service failure for % of users
- Solution: reconfigure dispatcher dynamically

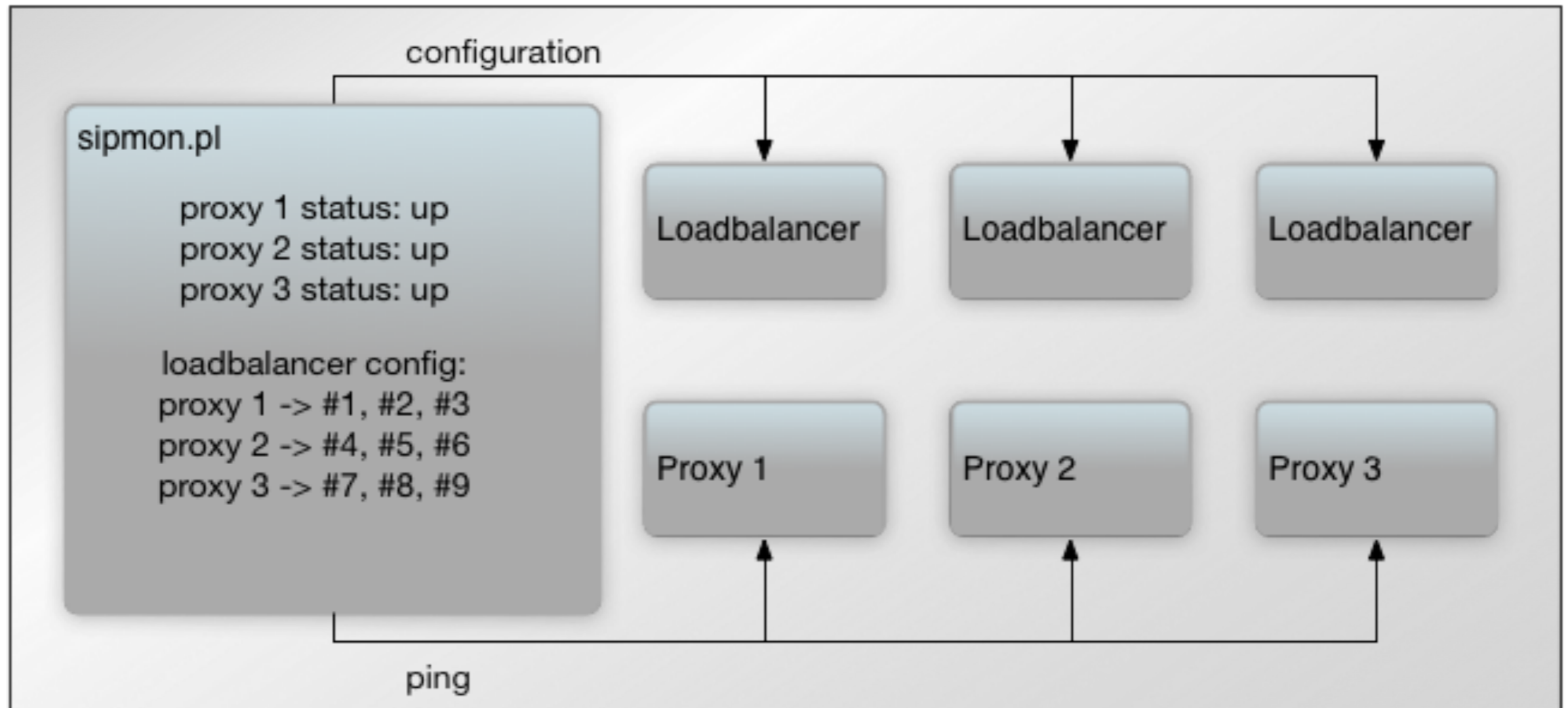


Introducing sipmon.pl

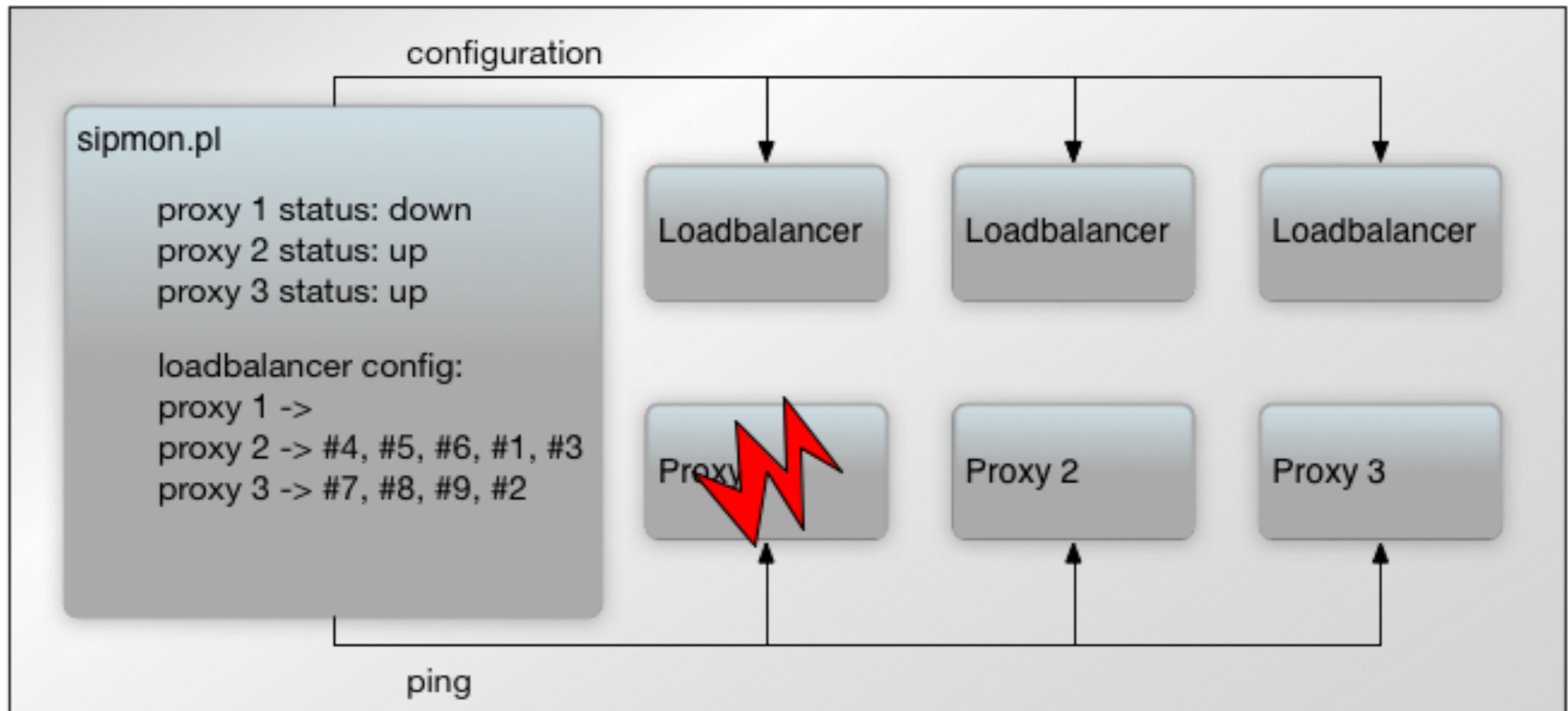
- A perlscript
- External monitor
- Pings proxy
- Generates configuration for dispatcher based on proxy availability
- Changes mapping of users to proxy servers



All sip routers running



Proxy failure



Thank you very much.

Questions?